

### REMARKS

Reconsideration of this application is respectfully requested.

In the Official Action, the Examiner rejects Claims 1-5, 9-12, 14-20, 24-27, and 29-32 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,801,747 to Bedard (hereinafter "Bedard"). Furthermore, the Examiner rejects Claims 6-8, 13, 21-23, and 28 under 35 U.S.C. § 103(a) as being unpatentable over Bedard.

In response, the Applicant respectfully traverses the Examiner's rejections under 35 U.S.C. §§ 102(b) and 103(a) for at least the reasons set forth below.

The Applicant respectfully submits that the present invention is differentiated from and patentable over Bedard in that the present invention deals with recommending/adjusting programming for viewers based on their history of viewing and at the granularity of specific time intervals. That is, in a broad sense, the invention teaches a method for identifying changes in television viewing preferences of an individual, comprising obtaining a viewing history indicating a set of programs that have been watched by a user; establishing at least two portions,  $VH_1$  and  $VH_K$ , from said viewing history; generating a corresponding set of program recommendation scores,  $S_1$  and  $S_K$ , for a set of programs in a given time interval based on said at least two viewing history portions,  $VH_1$  and  $VH_K$ ; and comparing said sets of program recommendation scores,  $S_1$  and  $S_K$ , to identify a change in said viewer preferences.

Bedard respectfully does not generate a program recommendation score,  $S_1$  and  $S_K$ , for a set of programs in a given time interval much less seek to recommend programming for a given time interval as set forth in independent Claim 1 and other rejected independent Claims 11, 16, 26 and 31. Bedard teaches the collection of a user's viewer

history in the form of an array comprising only the channels visited and the amount of time spent watching the particular channel (see Bedard, Figure 2). In a recommending operation (see Bedard, Figure 4), only those channels having a higher user viewing time (i.e., preferred channels or genres/categories of programming) according to the user's viewing profile will be recommended for easy user selection when the user's viewing profile information is merged with the EPG provided to the viewer (Figure 4 of Bedard).

Moreover, Bedard does not teach or suggest establishment of at least two user viewing profile time portions,  $VH_1$  and  $VH_K$ , during respective time spans  $T_1$  and  $T_K$ , from a viewing history. Further, Bedard's ultimate user profile (Figure 2 of Bedard) does not keep track of individual viewing habits within specific time intervals (e.g., 8:00-9:00 PM) much less distinguish among time portions of a user's viewing history (e.g., user's viewing habits from the prior fall season as compared to the user's viewing habits during that user's favorite sport playoff season (see page 6, lines 27-31)). At best, the user's viewing profile history is determinable only by virtue of the placement of a channel's entry in the array, e.g., the oldest or least recently viewed channel at the bottom, and no distinction is made as to how old (what time span), or what time interval (e.g., 8:00-9:00 pm) that viewing entry belongs. In fact, the only significance of the viewing habit in the Bedard's profile array is when an entry, typically the oldest, has to be deleted to make room for a new user viewing entry. Bedard further teaches away from the concept of the establishment of viewing history portions,  $VH_1$  and  $VH_K$ , by the notion that the user viewing profile in Bedard may be arbitrarily reinitialized at the command of the user when that user wants to initiate a new viewer profile collection period, or when it is automatically reinitialized at an appropriate time interval, e.g., after one year (Bedard at col. 4, lines 40-47).

Furthermore, Bedard does not teach or suggest the generation of program recommendation scores,  $S_1$  and  $S_K$ , for a set of programs in a given time interval based on the at least two viewing history portions. Bedard, at best, teaches tracking of the length (in total viewing time units) and frequency of visits to the various channels in the user profile array but does not associate a "recommendation score" for a program in a given time interval. The present invention, on the other hand, implements a viewer preference evaluation process (Figure 4 of the present specification) that generates recommendation scores for each program in a particular time interval. That is, the present invention generates a viewing history including a set of shows that was watched (and/or not watched) by the viewer over a period of time and records information for each program that is available in a given time interval. The invention implements a viewer preference evaluation process that generates recommendation scores for each program in a particular time interval, taking into account non-stationary viewing preferences. In the embodiment of the invention described, only from the viewing history subsets,  $VH_1$  and  $VH_K$ , and generated recommendation scores for viewed programs in a given time interval in each subset, is the change in said viewer preferences be identified.

With respect to the claimed recitation of "comparing" said sets of program recommendation scores,  $S_1$  and  $S_K$ , to identify a change in said viewer preferences, Bedard does not teach or suggest this feature at all. In Bedard, the only "comparing" step performed is when the user's single user viewing profile array has to be "updated" with a new user viewing preference entry, and it has to be determined whether there is room in the array (see Bedard at Col. 5, lines 49-53) so that the new viewing entry and viewing unit time is entered at the top of the array. Alternately, if there is no room at the top of the array for the new

entry, an existing entry is replaced. According to Bedard, the algorithm of Figure 3 is implemented to determine which entry is to be deleted from the profile, which, as described, will be an older entry, by virtue of that entry's position in the array, e.g., at the bottom. This algorithm takes into account the decrementing of a counter reflecting the amount of time units that user has spent on that particular channel. According to Bedard, a weighting scheme is further implemented whereby the program with the shortest amount of viewing units will most likely be the entry deleted in favor of the new entry (Bedard at col. 6, lines 9-46, Figure 3). Again, this notion of updating the user profile in Bedard is the only implementation of a comparison (decrementing of counter units and comparing them to zero) that is made, and, is only used to indicate which entry is to be deleted to make room for a new entry. Bedard simply does not perform any comparison of sets of program recommendation scores,  $S_1$  and  $S_K$ , to identify a change in said viewer preferences.

Thus, for instance, in the present invention, if the two sets of programs,  $S_1$  and  $S_K$ , are identical, then this will indicate that the viewer's preferences have not changed significantly. Thus, the oldest portions of that user's viewing history can be discarded without loss of information. If, however, the two sets of top-N programs,  $S_1$  and  $S_K$ , are different, then the television programming recommender has identified a non-stationary viewer preference, whereby the television programming recommender can present the user with one or both sets of programs,  $S_1$  and  $S_K$ , in the given time interval or a combination of the two sets, such as a union or intersecting set.

Respectfully, Bedard does not teach or suggest such concepts and the Examiner is respectfully requested to withdraw the rejection of Claims 1-5, 9-12, 14-20, 24-27, and 29-32 under 35 U.S.C. § 102(b) as being anticipated by Bedard. By virtue of their

dependency upon one or more of these claims, the Examiner is additionally requested to withdraw the rejection of Claims 6-8, 13, 21-23, and 28 under 35 U.S.C. § 103(a) as being unpatentable over Bedard.

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,



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